

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

# **NOTICE OF ACCEPTANCE (NOA)**

MIAMI-DADE COUNTY PRODUCT CONTROL SECTION 11805 SW 26 Street, Room 208

Miami, Florida 33175-2474 T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/economy

The Airolite Company, LLC P.O. Box 410 Schofield, WI 54476

Scope:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code. This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

**DESCRIPTION: Model K8206AMD Aluminum Louver System with Damper** 

**APPROVAL DOCUMENT:** Drawing No. **K8206AMD**, titled "K8206AMD", sheets 1 through 10 of 10, dated 08/22/2013, prepared by the manufacturer, signed and sealed by Chander P. Nangia, P.E., bearing the Miami-Dade County Product Control approval stamp with the Notice of Acceptance number and approval date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official. This NOA consists of this page 1 and evidence page E-1, as well as approval document mentioned above. The submitted documentation was reviewed by **Carlos M. Utrera, P.E.** 

(MIAMI-DADE COUNTY) APPROVED

Phyo 11/26/2013 NOA No 13-0919.04 Expiration Date: December 5, 2018 Approval Date: December 5, 2013 Page 1

## NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### A. DRAWINGS

1. Drawing No. **K8206AMD**, titled "K8206AMD", sheets 1 through 10 of 10, dated 08/22/2013, prepared by the manufacturer, signed and sealed by Chander P. Nangia, P.E.

# B. TESTS "Submitted under NOA # 13-0919.05"

- 1. Test reports on 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
  - 2) Large Missile Impact Test per FBC, TAS 201-94
  - 3) Cyclic Wind Pressure Loading per FBC, TAS 203-94 along with marked-up drawings and installation diagram of EACA-601D louvers, prepared by Architectural Testing, Inc., Test Report No. C6839.01-602-18, dated 08/12/2013, signed and sealed by Shawn G. Collins, P.E.
- 2. Test report on High Velocity Wind Driven Rain Resistance per AMCA 550, prepared by Architectural Testing, Inc., Test Report No. C6839.02-602-18, dated 08/12/2013, signed and sealed by Shawn G. Collins, P.E.

### C. CALCULATIONS "Submitted under NOA # 13-0919.05"

1. Structural calculations prepared by the manufacturer, dated 08/22/2013, signed and sealed by Chander P. Nangia, P.E.

#### D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

## E. MATERIAL CERTIFICATIONS "Submitted under NOA # 13-0919.05"

1. Test report on impact test per AMCA 540 of an EACA-601D louvers, prepared by Architectural Testing, Inc., Test Report No. C6840.01-602-44, dated 08/12/2013, signed and sealed by Shawn G. Collins, P.E.

#### F. STATEMENTS

- 1. Statement letter of code conformance to 2010 FBC, issued by Chander P. Nangia, P.E., dated 09/08/2013, signed and sealed by Chander P. Nangia, P.E.
- 2. No financial interest letter issued by Chander P. Nangia, P.E., dated 09/08/2013, signed and sealed by Chander P. Nangia, P.E.

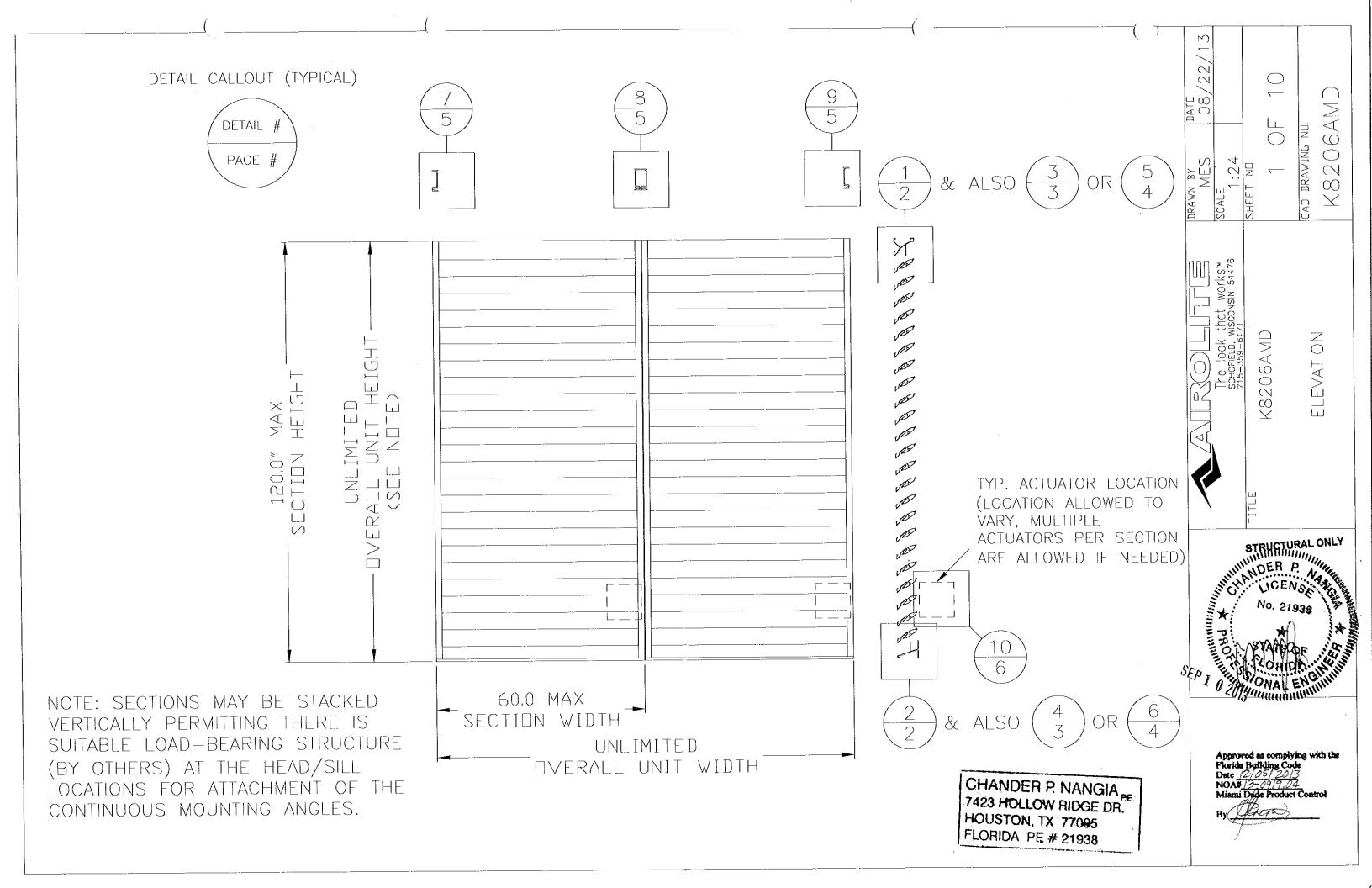
"Submitted under NOA # 08-0501.02"

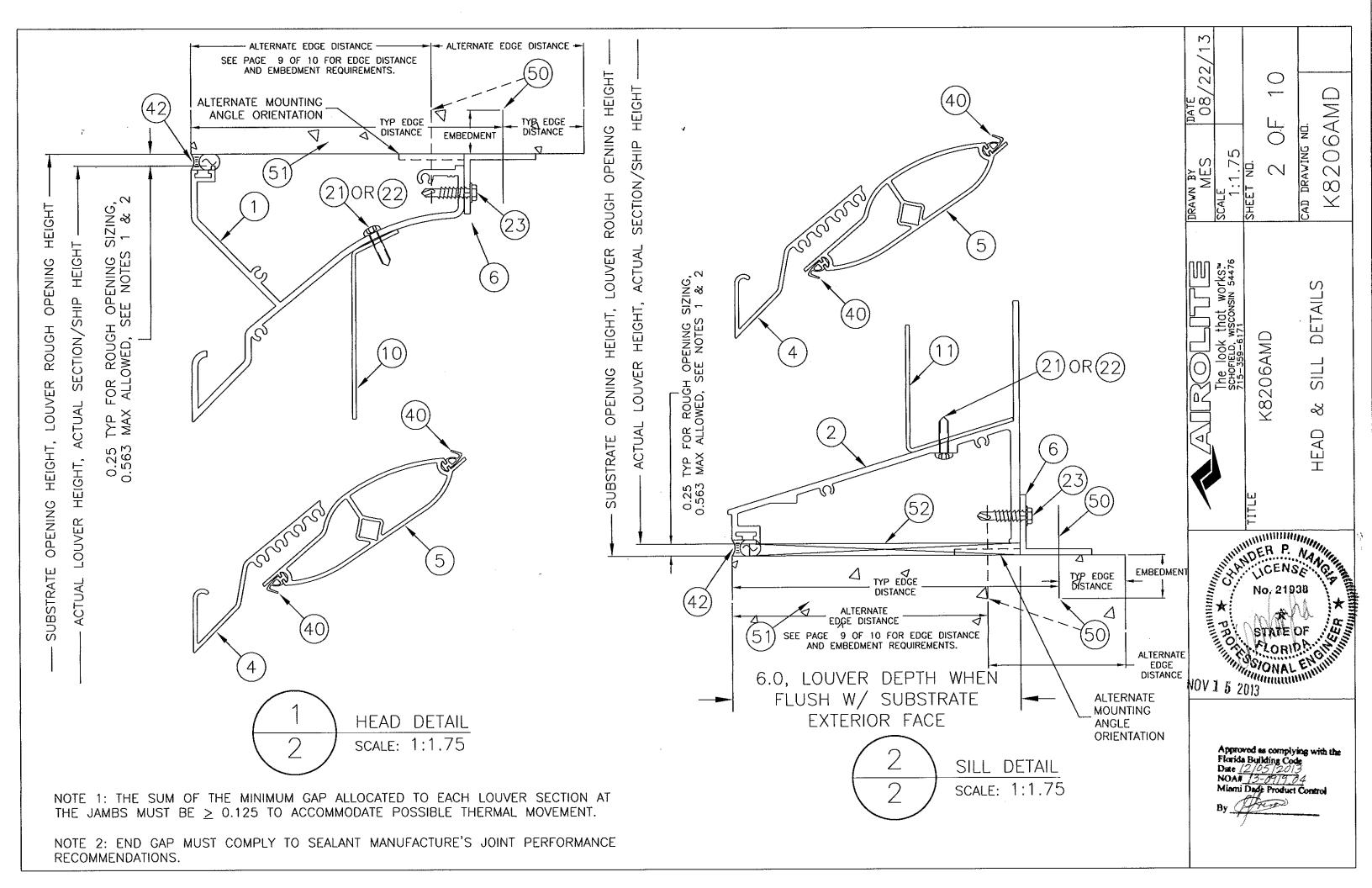
3. Private label agreement dated 04/29/2008.

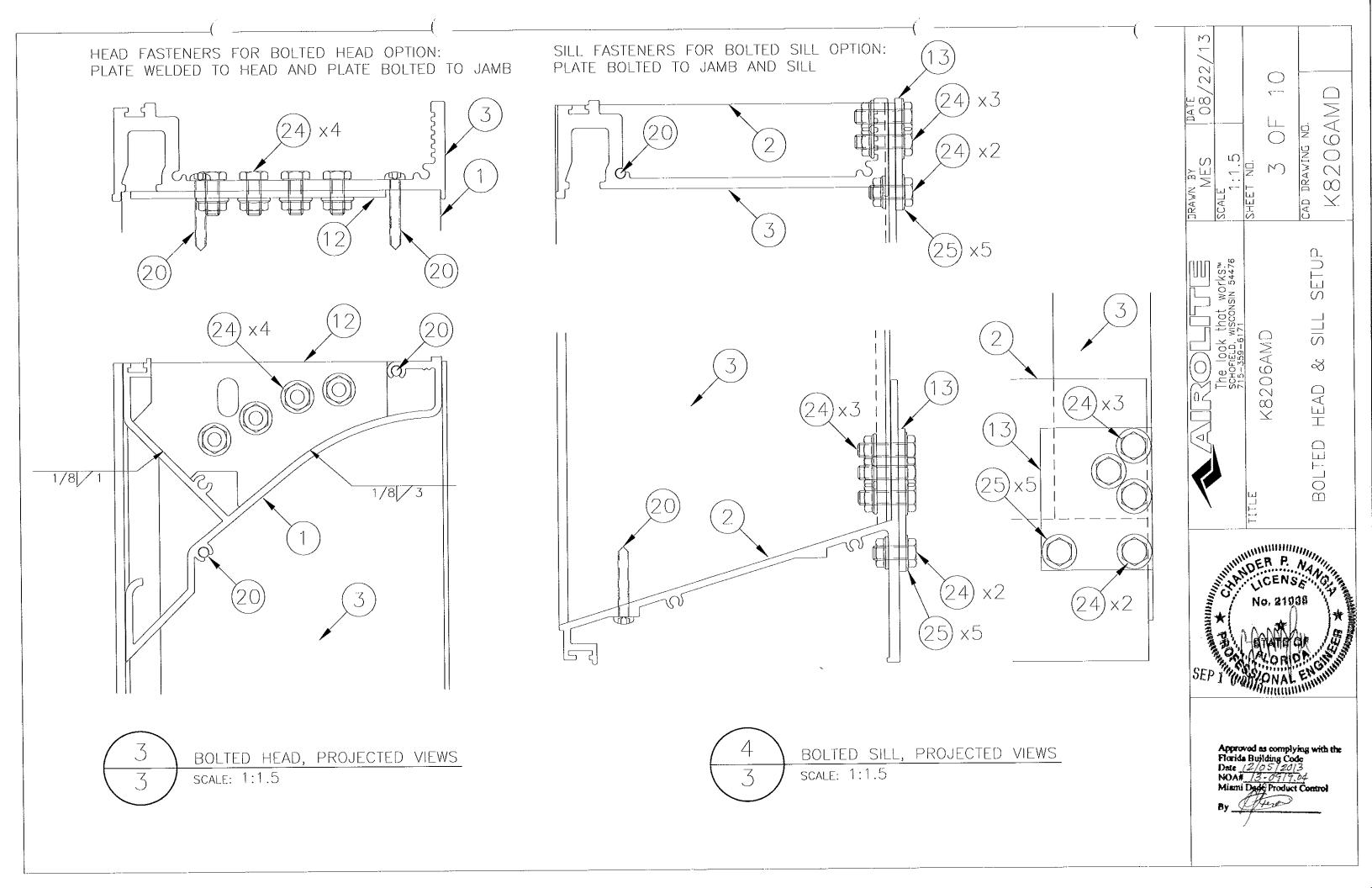
Carlos M. Utrera, P.E. Product Control Examiner

NOA No 13-0919.04

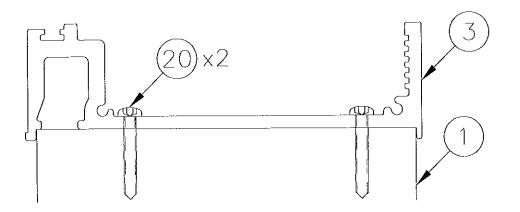
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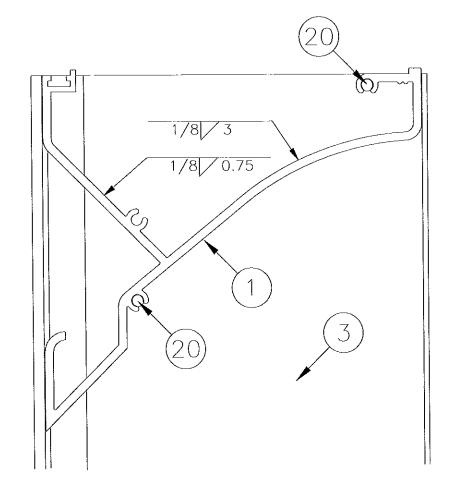






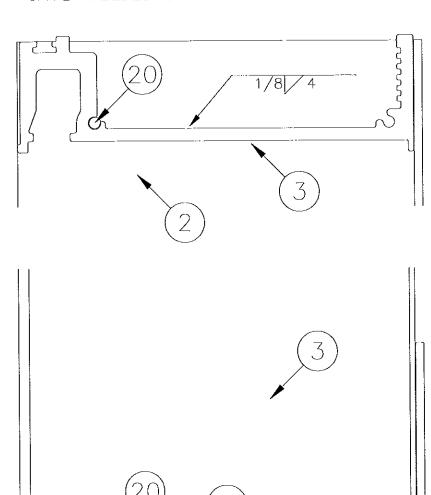
HEAD FASTENERS FOR WELDED HEAD OPTION: HEAD WELDED DIRECTLY TO JAMB

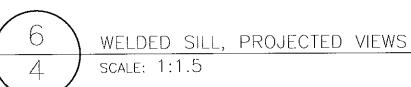




5 WELDED HEAD, PROJECTED VIEWS
4 SCALE: 1:1.5

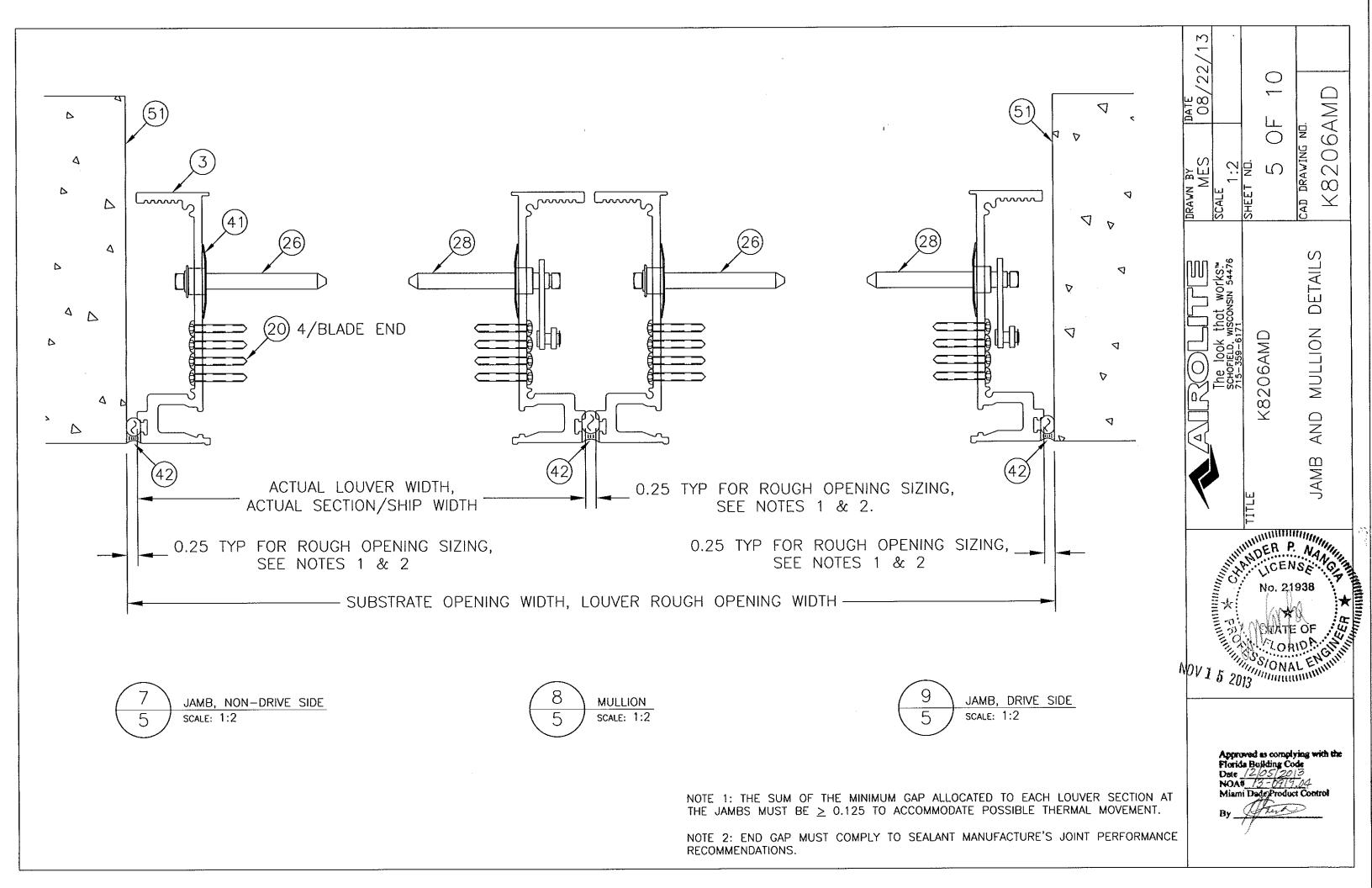
SILL FASTENERS FOR WELDED SILL OPTION: JAMB WELDED DIRECTLY TO SILL

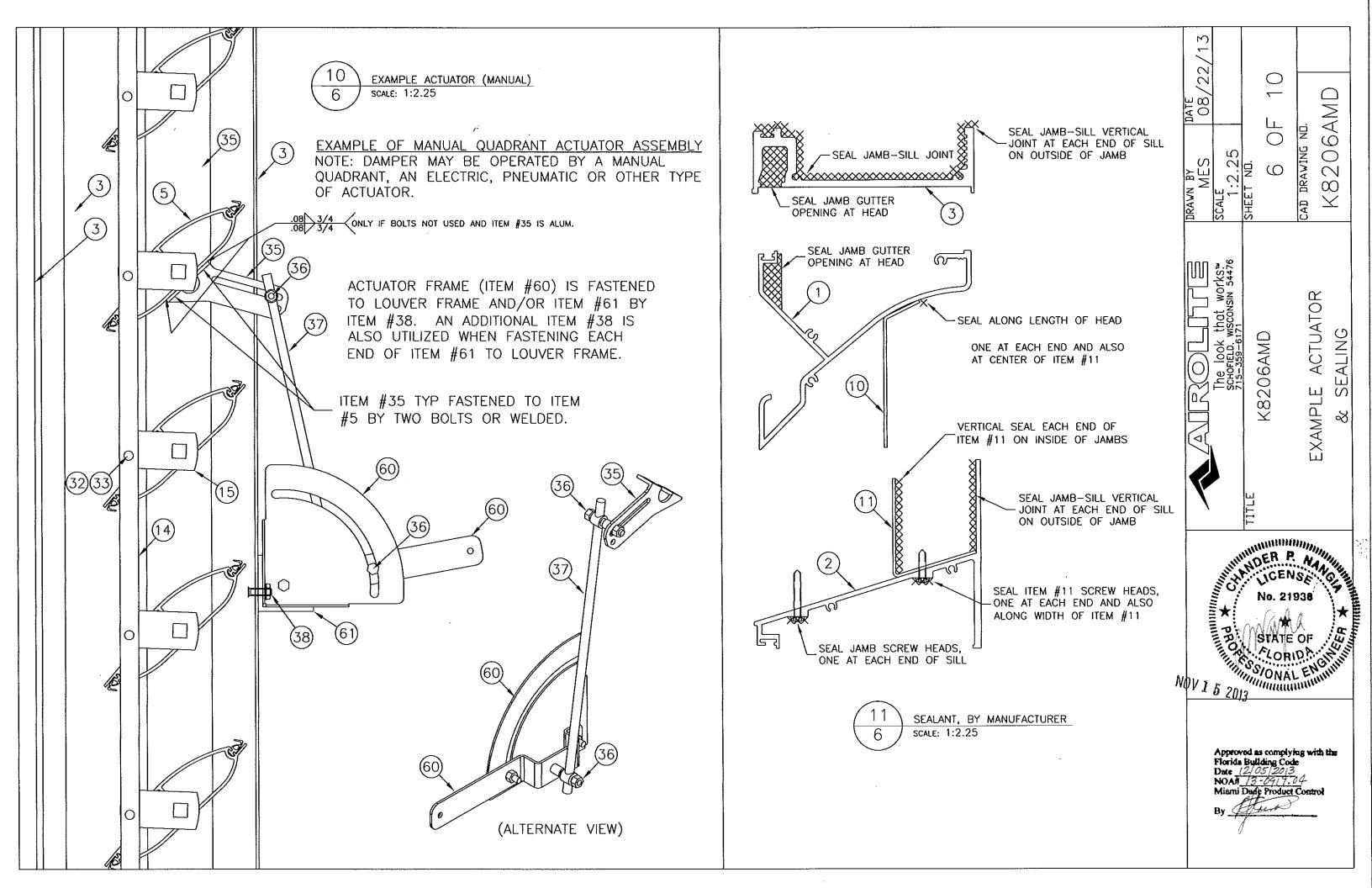


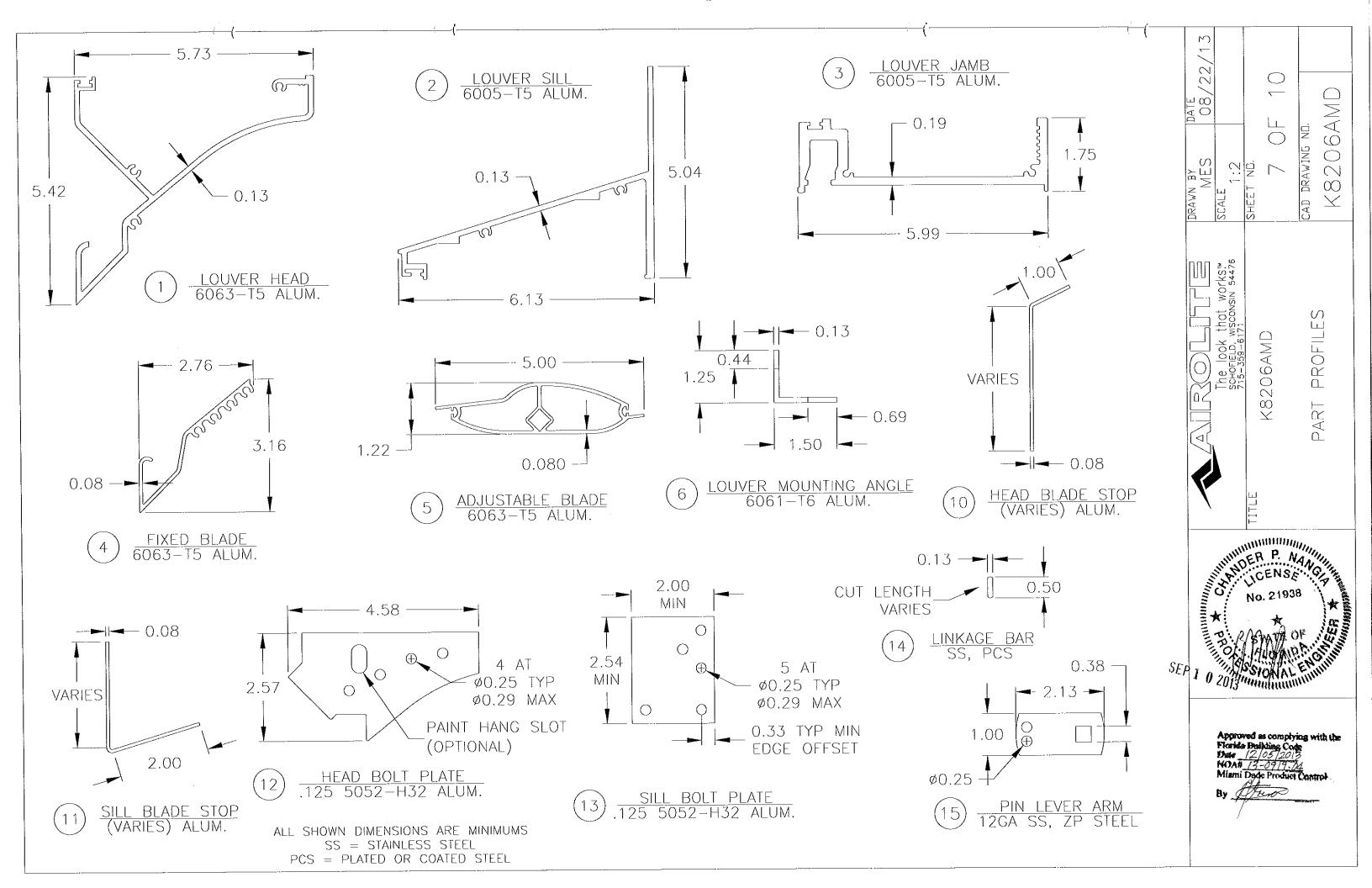




Approved as complying with the Florida Building Code
Date 12/05/20/3
NOAV 13-09/9.04
Miami Dade Product Control







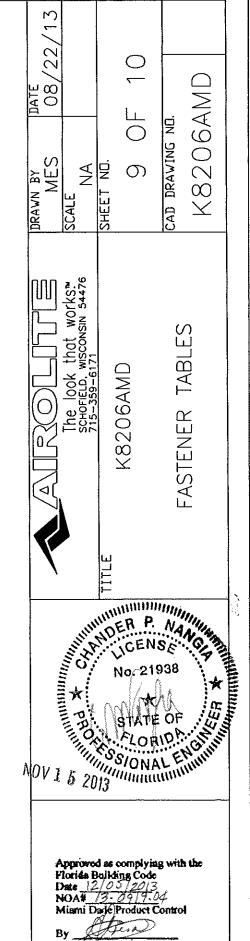
3/8" POWERS WEDGE BOLT FASTENER TABLE					
FASTENER NUMBER	50A				
DESCRIPTION	3/8' POWERS WEDGE BOLT				
SUBSTRATE	NORMAL WEIGHT CONCRETE CONCRETE MASONRY (CMU)				
MINIMUM	2.5	KSI	6' WIDE, GRADE N, TYPE II, LIGHT/MEDIUM/NORMAL WEIGHT CMU CONFORMING TO ASTM C90, 1.5 KSI GROUT FILLED		
EDGE DISTANCE (MIN)	2 IN	3 IN	1-1/2 IN	S IN	
SLAB/BLOCK CORNER DISTANCE (MIN)	5 IN	3 IN	1-1/2 IN	S IN	
PENETRATION (MIN)	2-1/8 IN		2-1/2 IN		
ANCHOR ANGLE END DISTANCE (MIN)	<= (ANCHOR SPACING)/2+3		<= (ANCHOR SPACING)/2+3		
LOUVER HEIGHT (IN)	SPACING (IN)		SPACING (IN)		
≤120	6		NOT ALLOWED	NOT ALLOWED	
≤96	0	8		6	
≤72 ≤48	8		8	8	

LAG S	SCREW, SCRE	W, & BOLT	W/NUT FAST	TENER TABL	E
FASTENER NUMBER	50C	50D	50E		
DESCRIPTION	1/4″ LAG SCREW	3/8" LAG SCREW	1/4"-20 SCREW OR BOLT W/NUT		
SUBSTRATE	٧C	וטט	STEEL		ALUMINUM
MINIMUM	GΣ	0.42	A36 STEEL OR Fy≥36 KSI		STRESSES > 6063-T5
EDGE DISTANCE (MIN)	1 IN	1-1/2 IN	1/2 IN		1/2 IN
CORNER DISTANCE (MIN)	1 IN	1-1/2 IN	1/2 IN		1/2 IN
PENETRATION* (MIN)	2-3/4 IN		16GA (0.06 IN)	3/16 IN	16GA (0.06 IN)
LOUVER HEIGHT (IN)	SPACING (IN)		SPACING (IN)		SPACING (IN)
≤120		6	4		4
≤96	4			6	4
≤84		8	6		6
≤72	6				

1/4" TAPCON SCREW FASTENER TABLE					
FASTENER NUMBER	50B				
DESCRIPTION	1/4" TAPCON W/ ADVANCED THREADFORM				
SUBSTRATE	CONCRETE OR CONCRETE MASONRY (CMU)				
MINIMUM	CONCRETE: 3 KSI ACI 301 CONCRETE CMU: ASTM C90, 3 KSI GROUT FILLED, LIGHT-WIGHT ≥ 95 PCF, MEDIUM-WEIGHT ≥ 117 PCF				
EDGE DISTANCE (MIN)	1 IN 1-1/2 IN 2-1/2 I				
SLAB/BLOCK CORNER DISTANCE (MIN)	1 IN	1-1/2 IN	2-1/2 IN		
PENETRATION (MIN	1-3/4 IN				
LOUVER HEIGHT (IN)	SPACING (IN)				
≤120	4	4			
≤84	6		6		
≤72	6		l		

CONTINUOUS	ANGLE TO LOUVER FRAME SCREW		
(FASTENER = ITEM #23)			
LOUVER HEIGHT (IN)	MAXIMUM SPACING (IN)		
≤120	3.75		
≤108	4		

\* PENETRATION IS EQUAL TO OVERALL FASTENER LENGTH FOR CONCRETE/CMU FASTENERS. IF SHIMS ARE USED, FASTENER LENGTH MUST BE INCREASED BY THICKNESS OF SHIMS.



TEM		MATERIAL	NOTES
i	LOUVER HEAD	ALUM	
2	LOUVER SILL	ALUM	
3	LOUVER JAMB	ALUM	
4	LOUVER FIXED BLADE	ALUM	4.8" SPACING
5	LOUVER ADJUSTABLE BLADE	ALUM	4.8" SPACING
6	LOUVER MOUNTING ANGLE, CONTINUOUS	ALUM	AT HEAD & SILL ONLY
10	HEAD BLADE STOP	ALUM	`
11	SILL BLADE STOP	ALUM	
	HEAD BOLT PLATE	A1 1134	NOT REQUIRED IF HEAD IS
12	NEAN BUL! FLAIC	ALUM	WELDED DIRECTLY TO JAMB
13	SILL BOLT PLATE	ALUM	NOT REQUIRED IF SILL IS WELDE
	LINKAGE BAR	SS/PCS	DIRECTLY TO JAMB
	PIN LEVER ARM		CDINGCD TO DIN
15	PIN LEVER ARM	SS/PCS	CRIMPED TO PIN
20	HIO 105 MIN SCOTY	88 /868	
	#10 x 1.25 MIN SCREW	\$2/PC\$	OAR MAY DO ALDES DI ADO OTO
	#10 × 3/4 MIN SCREW, 4" MAX END DISTANCE	SS/PCS	24" MAX O.C. ALONG BLADE STOP
	1/8 MIN DIA. RIVET, 4" MAX END DISTANCE	SS/ALUM/PC	24" MAX O.C. ALONG BLADE STOP
	1/4-20 × 1 SCREW, 4' MAX END DISTANCE	SS/PCS	SEE FASTENER TABLE
	1/4-20 × 5/8 LONG MIN BOLT W/ FLANGE NUT	SS/PCS	AT HEAD AND UNDER SLOPED SIL
	1/4-20 x 7/8 LONG MIN BOLT W/ FLANGE NUT	SS/PCS	AT SILL ABOVE SLOPED SILL
	0.04 x 1/4 x 5/8 WASHER	SS/PCS	
	NON-DRIVE PIN ASSEMBLY	VARIOUS	
	NON-DRIVE PIN ASSEMBLY	VARIOUS	ALLOWED TO REPLACE ITEM 26
	DRIVE PIN ASSEMBLY	VARIDUS	ALLOWED TO REPLACE ITEM 26
	ADJUSTABLE BLADE PIN	SS/PCS	
	PIN BUSHING	SS/BRONZE/DELRIN	
	1/4 E-CLIP	SS/PCS	
	7/32 E-CLIP	SS/PCS	
	1/4 x 0.5 KNURL PIN	SS/PCS	PRESS FIT INTO PIN LEVER ARM
	0.04 x 3/8 SQUARE x 3/4 WASHER	SS/PCS	
	ADJUSTABLE BLADE DRIVE LEVER	SS/ALUM/PCS	
	1/4-20 x 9/16 BALL SWIVEL W/ NUT	SS/PCS	
37	5/16 DIA. LINKAGE ROD	SS/PCS	
38	#10-32 x 5/8 THREAD STUD W/ NUT	SS/PCS	
40	ADJUSTABLE BLADE SEAL	VINYL/SILICONE	
41	JAMB SEAL	22	
42	SEALANT AND BACKER ROD	VARIES	NOT BY MANUFACTURER
50A	3/8 POWERS WEDGE BOLT	SS/PCS	SEE FASTENER TABLE
50B	1/4 TAPCON W/ ADVANCED THREADFORM SCREW	SS/PCS	SEE FASTENER TABLE
50C	1/4 LAG SCREW	SS/PCS	SEE FASTENER TABLE
50D	3/8 LAG SCREW	SS/PCS	SEE FASTENER TABLE
50E	1/4-20 SCREW OR 1/4-20 BOLT W/NUT	SS/PCS	SEE FASTENER TABLE
51A	CONCRETE, 1.5 OR 3 KSI	CONCRETE	NOT BY MANUFACTURER
	CMU, 1.5 DR 3 KSI GROUT FILLED	CONCRETE	NOT BY MANUFACTURER
5iC	STRUCTURAL STEEL, 3/16 36 KSI	STEEL	NOT BY MANUFACTURER
	STEEL STUD, 16GA FY 36 KSI	STEEL	NOT BY MANUFACTURER
	WOOD, G 0.42	WOOD	NOT BY MANUFACTURER
	ALUMINUM, 1/8 6063-T5	ALUM	NOT BY MANUFACTURER
52	INCOMPRESSIBLE SHIM, OPTIONAL, AS REQUIRED	VARIES	NOT BY MANUFACTURER
<u> </u>	THE STATE OF THE S	7711120	AG. DI TIMOT HOTONEN
			TYP VARIES, NOT ALWAYS BY
60	ACTUATOR, COMPONENTS VARY AMONG TYPES	VARIES	MANUFACTURER
	ACTUATOR MOUNTING ANGLE (MAY OR MAY NOT	ALUM	BY MANUFACTURER WHEN
61	BE REQUIRED BASED ON ACTUATOR MOUNT TYPE)		MANUFACTURER MOUNTS ACTUATO

#### **GENERAL NOTES:**

- 1. IT SHALL BE THE RESPONSIBILITY OF THE PERMIT HOLDER TO VERIFY THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURE TO SUPPORT THE LOADS IMPOSED BY THE LOUVER ASSEMBLY.
- 2. THIS LOUVER HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH MIAMI-DADE COUNTY, PROTOCOLS [AND QUALIFIED IN ACCORDANCE WITH THE 2010 FLORIDA BUILDING CODE (FBC) AND TEST PROTOCOLS/STANDARDS]:

TAS-201 (LARGE MISSILE IMPACT TEST)

TAS-202 (UNIFORM STATIC WIND PRESSURE TEST)

TAS-203 (UNIFORM CYCLIC WIND PRESSURE TEST)

AMCA STANDARD 550-09 (HIGH VELOCITY WIND-DRIVEN RAIN TEST)

- 3. THIS LOUVER HAS BEEN DESIGNED, TESTED, AND APPROVED TO WITHSTAND DESIGN PRESSURES OF UP TO AND INCLUDING +/-110 PSF.
- 4. THE LOUVER MAY BE INSTALLED IN A LOCATION WHERE THE ROOM BEHIND THE LOUVER IS NOT DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM OR THE ROOM WILL HOUSE NON-WATER RESISTANT OR NON-WATER PROOF EQUIPMENT, COMPONENTS, OR SUPPLIES.
- 5. THE MAXIMUM SINGLE SECTION SIZE IS 60" WIDE BY 120" HIGH. THE MAXIMUM OVERALL/ASSEMBLED SIZE IS UNLIMITED WIDE (BY USE OF MULTIPLE SECTIONS OF 60" WIDE OR LESS) BY 120" HIGH. SECTIONS/ASSEMBLIES MAY BE STACKED VERTICALLY PROVIDED THERE IS SUITABLE STRUCTURAL SUPPORT (DESIGNED AND INSTALLED BY OTHERS) TO SUPPORT ALL LOADS TRANSFERRED FROM THE LOUVER HEAD AND/OR SILL TO THE SUBSTRATE.
- 6. ALL WOOD SUBSTRATE SHALL HAVE SPECIFIC GRAVITY (G)  $\geq$  0.42.
- 7. ALL STEEL STUD SUBSTRATE SHALL BE MIN 16 GA, FY  $\geq$  36 KSI.
- 8. ALL STRUCTURAL STEEL SUBSTRATE SHALL BE MIN 3/16" THICK, FY  $\geq$  36 KSI.
- 9. ALL CONCRETE SUBSTRATE SHALL BE RATED  $\geq$  1.5 KSI OR  $\geq$  2.5 KSI OR  $\geq$  3 KSI AS REQUIRED BASED ON FASTENER TYPE USED.
- 10. CONCRETE MASONRY (CMU) SHALL BE ≥ THE FOLLOWING: 6" WIDE, GRADE N, TYPE II, LIGHT/MEDIUM/NORMAL-WEIGHT CMU CONFORMING TO ASTM C90, AND (AS REQUIRED BASED ON FASTENER TYPE USED) 1.5 KSI OR 3 KSI GROUT-FILLED.
- 11. ALL ALUMINUM SUBSTRATE SHALL BE MIN 1/8" THICK, WITH ALLOWABLE STRESSES  $\geq$  THAT OF 6063-T5.
- 12. LOUVER CONSTRUCTION: HEAD, SILL, JAMBS, AND BLADES ARE SQUARE CUT AT BOTH ENDS. FIXED AND ADJUSTABLE BLADE SPACING IS 4.8". FIXED BLADES ARE SECURED TO THE JAMBS WITH (4) SCREWS PER BLADE END. ADJUSTABLE BLADES ARE SECURED TO THE JAMBS WITH (1) PIN PER BLADE END. EACH JAMB IS SECURED TO THE SILL WITH (1) SCREW AND TO THE HEAD WITH (2) SCREWS. THE HEAD IS ALSO SECURED TO THE JAMB WITH (4) BOLTS PER HEAD END OR WELDED DIRECTLY TO THE JAMBS. THE SILL IS ALSO SECURED TO THE JAMB WITH (3) BOLTS PER SILL END OR WELDED DIRECTLY TO THE JAMBS.
- 13. INSTALLER TO PROVIDE SEPARATION OF DISSIMILAR MATERIALS AS REQUIRED. SEE FL BLDG CODE SECTION 2003.8.4 FOR DETAILS.
- 14. ALL STAINLESS STEEL (SS) AND PLATED OR COATED STEEL (PCS) PARTS PROVIDED BY MANUFACTURER ARE INHERENTLY CORROSION RESISTANT OR HAVE A CORROSION RESISTANT COATING.
- 15. STEEL/STANLESS STEEL/ALUMINUM PARTS MAY BE MADE OUT OF ALTERNATE ALLOY THAT HAS EQUAL OR GREATER YIELD STRENGTH.

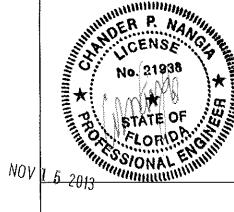
ITEM TABLE NOTES:

PCS = PLATED OR COATED STEEL

SS = STAINLESS STEEL

ALL SHOWN "DESCRIPTION" DIMENSIONS ARE MINIMUMS. FLANGE NUT ALLOWED TO BE REPLACED WITH A STANDARD NUT AND WASHER.

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DATE 08/22/1			10 OF 10		Ľ.	4MD
DRAWN BY MES	SCALE NA	SHEET NO.	10 0		CAD DRAWING NO.	K8206AMD
	The look that works: SCHOFFELD, WISCONSIN 54476 715-359-6171		K8206AMD			0100
	THUMBER P. NANGER					



Approved as complying with the Florida Bulkling Code
Date 12/05/2013
NOAM 13-0917.04
Mismi Dade Product Control